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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,574	10/17/2003	Didier Lacroix	Q77887	8954
23373	7590	08/25/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			STEIN, JULIE E	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,574	LACROIX ET AL.	
	Examiner	Art Unit	
	Julie E. Stein, Esq.	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 25-27 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claims 25-27, the network controller claimed is also part of the system of claim 13. It appears that the network controller claimed in these claims is not different than the network controller recited in claim 13, thus the claims do not further limit claim 13.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 and 13-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 recites the limitation "it" in line 10. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 7 recites the limitation "ahead of time" in line 5. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 7 recites the limitation "to change channel" in line 7. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 7 recites the limitation "deferred by an amount" in line 9. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 10 recites "whilst observing said network" in line 24. This recitation renders the claim indefinite as it is unclear what or who is observing the network.

10. Claim 13 recites the limitation "it" in lines 13 and 14. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 19 recites the limitation "ahead of time" in line 13. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 19 recites the limitation "to change channel" in line 15. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 19 recites the limitation "deferred by an amount" in line 18. There is insufficient antecedent basis for this limitation in the claim.

14. In claim 28, the recitation of a use of the system, the method, the network controller, and the access network equipment according to claim 1 is indefinite as claim 1 recites a method, not specifically a system, a network controller, and an access network equipment.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,263,302 to Jahn in view of U.S. Patent Application Publication 2003/0039226 to Kwak.

Jahn teaches all the steps of independent claim 1, including a method of managing the changing of channels between a communications network and at least one network equipment (abstract), characterized in that after setting up a connection for sending and/or receiving data on a first channel between said network and said network equipment (column 7, lines 12 to 26), (Figure 3, column 7, lines 45 to 49).

However, Jahn does not explicitly teach said network equipment is sent a message on said first channel instructing it to continue said connection on a second channel. However, Jahn does show in Figure 3 and the corresponding description that data is being sent from the network through B1 and B2 and then to E. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made, to understand that V, B1, B2 and E are communicating via messages being sent back and forth and that as shown in Figure 3, a connection between both B1 and B2 is being maintained with E.

Jahn also does not explicitly teach maintaining said first channel until it receives data and/or acknowledgments of data from said equipment on said second channel whereupon the resources associated with said first channel are released. But, Kwak teaches a method of a base station repeatedly sending a message to a mobile station and waiting for an acknowledgment message in return. See paragraphs 12 to 13. Also, Jahn teaches releasing the B1 to E connection as seen in Figure 4 and its corresponding description. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that data or a message/acknowledgment would be sent from E to V through B2 to confirm that E was receiving data from B2 prior to releasing B1 because without the acknowledgment or data, V would have no way of knowing whether E was in fact receiving the data on the correct channel.

Jahn in view of Kwak also teaches all the steps of dependent claim 2, including in the case of sending data to the equipment, the sending of the data to said network equipment on said first channel and said second channel continues until data and/or acknowledgments of data are received from said network equipment on said second channel. See, Jahn column 7, lines 45 to 55 and Kwak paragraphs 12 to 13.

The rejection of claim 1 is hereby incorporated. Jahn teaches all the elements of independent claim 13, including a system for managing the changing of channels

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between a network controller and at least one network equipment in a communications network (Jahn, abstract), which system is characterized in that it includes management means (Jahn, V) adapted, in the event of setting up a connection for sending and/or receiving data on a first channel between said network controller (Jahn, B1) and said network equipment (Jahn, E).

However, Jahn does not explicitly teach requesting said network controller to send said network equipment a message on said first channel and instructing it to continue said connection on a second channel. However, Jahn does show in Figure 3 and the corresponding description that data is being sent from the network to B1 and B2 and then to E. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that V, B1, B2 and E are communicating via messages being sent back and forth and that as shown in Figure 3. a connection between both B1 and B2 is being maintained with E.

Jahn also does not explicitly teach maintaining said first channel until it receives data and/or acknowledgments of data from said equipment on said second channel, and to release the resources associated with said first channel on receiving said data and/or said acknowledgments of data. But, Kwak teaches a method of a base station repeatedly sending a message to a mobile station and waiting for an acknowledgment message in return. See paragraphs 12 to 13. Also, Jahn teaches releasing the B1 to E connection as seen in Figure 4 and its corresponding description. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that data or a message/acknowledgment would be sent from E to V

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through B2 to confirm that E was receiving data from B2 prior to releasing B1 because without the acknowledgment or data, V would have no way of knowing whether E was in fact receiving the data on the correct channel.

Jahn in view of Kwak also teaches all the elements of dependent claim 14, including in the case of sending data to the equipment, said management means are adapted to request said network controller to continue to send data to said network equipment on said first channel and said second channel until it receives data and/or acknowledgments of data from said network equipment on said second channel. See, Jahn, Figure 3 and column 7, lines 45 to 55 and Kwak, paragraphs 12 to 13.

Jahn teaches all the steps/elements of claims 3-6 and 15-18 except the specific method in which the message is repeated on the first channel, which include a chosen number of times, the number of repetitions is a function of a required success rate and/or a measured error rate, the time scheme is periodic, and the repetition period is chosen to prevent correlation between error rates associated with two consecutive messages. However, Kwak teaches a method of a base station repeatedly sending a message to a mobile station if no acknowledgment is received. See paragraphs 13 to 17. In addition, Kwak teaches the use of the number of retransmissions for a particular channel (retransmission statistics) and other various statistics including bit and block error rates to determine the measure of a channel's quality. See paragraph 14.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Jahn to include a retransmission scheme as taught by Kwak in which the message sent on the first channel is repeated a chosen number of

times in view of various parameters including, a measured error rate because using the retransmission statistics is a good measure of the channel's quality and repeating the transmission ensures that the message is received when no acknowledgment is received. See paragraphs 14 and 13.

Jahn in view of Kwak teaches all the steps/elements of claim 9 and 21, including the message is repeated said chosen number of times until acknowledgments of data are received from said network equipment on said second channel. See paragraph 12 of Kwak and Figure 3 and column 7, lines 45 to 55 of Jahn.

Jahn in view of Kwak teaches all the steps/elements of claims 10-12 and 22-24, including repeating the message while observing the network equipment to detect a change in behavior of the network equipment (Kwak, paragraphs 12 to 13), including receiving data from said network equipment on said second channel (Jahn, Figure 3 and column 7, lines 45 to 55) or detecting a variation in a parameter chosen in a group comprising at least a change of mode of operation parameter (Jahn, Figure 3 and column 7, lines 45 to 55), a frequency, a position, and reception of acknowledgments.

The rejection of claim 13 is hereby incorporated. Jahn in view of Kwak teaches all the elements of claims 25-27, including a network controller (B1) of an access network of a communications network, equipment (B1) of an access network of a communications network, and a communications network (Jahn abstract) including a system according to claim 13.

The rejection of claim is hereby incorporated. Jahn in view of Kwak also teaches all the elements of claims 28-29, including the use of the system, the method, the

network controller, and the access network equipment of claim 1 in a PHS network.

See, Jahn column 4, lines 18 to 31.

18. Claims 7-8 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jahn in view of Kwak as applied to claims 1 and 13 above, and further in view of U.S. Patent No. 5,479,409 to Dupuy.

Jahn in view of Kwak teach all the steps/elements of claims 7-8 and 19-20, except a time is determined that enables channel change messages to reach said network equipment ahead of time by an amount at least equal to the time necessary for the network equipment to change channel, and the sending of data on said first channel and said second channel is deferred by an amount that is a function of said time and that the time is also a function of the data bit rates and/or data sending speeds of said first channel and said second channel. However, Dupuy teaches that when a mobile unit moves from one cell to another, timing advance data must be taken into consideration and transmitted to the mobile station. See abstract and column 1, lines 10 to 19. Dupuy also teaches a method of calculating a timing advance performed at a network element, such as a BTS. See column 2, lines 17 to 50. The calculation takes into consideration the time between reception of a signal from the mobile unit and a clock signal within the BTS. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that a network element, such as a BTS would have to calculate a timing advance, as taught by Dupuy, in order to ensure, for example, that messages sent between the mobile unit and a network

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controller would not interfere or overlap with other messages sent my other mobile units. See Dupuy, column 2, lines 38 to 50.

Conclusion


19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication 2004/0002340 to Lim et al. teaches a method and system for sending channel assignment messages.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES


8-18-2005

NGUYENT.VO
PRIMARY EXAMINER